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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/311,014	05/13/1999	MICHAEL A. HELGESON	1004.1129101	9662

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EXAMINER	
SOBUTKA, PHILIP	

ART UNIT	PAPER NUMBER
2684	15

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Commissioner for Patents

Office Action Summary	Application No.	Applicant(s)	
	09/311,014	HELGESON, MICHAEL A.	
	Examiner	Art Unit	
	Philip J. Sobutka	2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *27-30* is/are allowed.

6)☒ Claim(s) *1-26 and 31-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2,9,31 are rejected under 35 U.S.C. 102(b) as being anticipated by Bane (US 5,481,259).

Consider claims 1,9,31. Bane teaches a system comprising: at least one master unit (Bane see especially figs 1,4, item 15, col 2, lines 34-41); a plurality of remote units (Bane see especially fig 1, items 12) including means for sensing external conditions and generating sensor data and wirelessly communicating with the master unit (Bane see especially fig 2, col 2, line 42 – col 3, line 2); means for calculating a schedule of transmissions from the remotes to the master unit; wherein the means for transmitting from the master unit to the remote units includes transmitting at least part of the schedule; and timing means in the remote units for enabling the remote to transmit external sensor data to the master in accordance with the schedule (Bane see especially fig 4, col 4, line 60 – col 5, 52). Note that Bane's schedule includes intervals of greater than 1 second (Bane fig 1). Note that Bane's wake up period would be a predetermined communication time, since the claim does not specify that it is a predetermined remote transmission time.

As to claim 2, note that Bane's remotes includes an RF transceiver, controller and sensor (Bane see especially fig 4).

Claim Rejections - 35 USC § 103

3. Claims 3,5,6,7,10,12-18,32,33, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bane in view of Gaucher (US 6,175,860).

Consider claims 3,6,32. Bane teaches a system comprising: at least one master unit (Bane see especially figs 1,4, item 15, col 2, lines 34-41); a plurality of remote units (Bane see especially fig 1, items 12) including means for sensing external conditions and generating sensor data and wirelessly communicating with the master unit (Bane see especially fig 2, col 2, line 42 – col 3, line 2); means for calculating a schedule of transmissions from the remotes to the master unit; wherein the means for transmitting from the master unit to the remote units includes transmitting at least part of the schedule; and timing means in the remote units for enabling the remote to transmit external sensor data to the master in accordance with the schedule (Bane see especially fig 4, col 4, line 60 – col 5, 52). Note that Bane's schedule includes intervals of greater than 1 second (Bane fig 1). Bane lacks a teaching of the master unit sending transmission times, thereby allowing the remotes to automatically transmit at the scheduled times without the master having to interrogate them. Gaucher teaches a bi-directional communications arrangement in which the master has a transmitter which transmits a schedule for transmission to a transceiver at the remote (Gaucher figs 4,5,6b, 6c,col 7, lines 48-55, col 10, lines 47-56, 61-68). Note that Gaucher's

arrangement includes scheduling the remotes as a function of the type of remote (Gaucher col 8, lines 40-62, col 9, lines 37-65). It would have been obvious to one of ordinary skill in the art to modify Bane to have the master transmit the scheduled transmission times , thereby allowing for the remotes to automatically transmit at the scheduled times without the master having to send an interrogation signal, eliminating the delay caused by the master being required to send individual interrogation signals and eliminating the possibility that the remotes might miss the interrogation signal due to interference.

As to claims 10,12-14, the system of Bane as modified by Gaucher would perform the claimed steps.

As to claims 7,15,16,17,18, note that Bane as modified by Gaucher's arrangement above, would include scheduling the remotes as a function of the type of remote (Gaucher col 8, lines 40-62, col 9, lines 37-65).

As to claim 5, note that Bane teaches transmitting the time as delay times (Bane see especially fig 4).

As to claims 33,34, note that Bane's remotes include a timer (Bane fig 2, item 23).

4. Claims 8,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bane in view of Gaucher and further in view of Simionescu et al (US 5,963,650).

Bane in view of Gaucher teaches everything claimed including the remotes having power saving sates in which the remotes neither transmit nor receive (Bane see

especially col 5, lines 54-61). Simionescu teaches a remote wireless data collection system in which the remotes has modes for transmit, receive and normal, power saving mode (Simionescu col 12, lines 30-65). Simionescu teaches that this allows the power consumption to be tailored to the power requirements (Simionescu col 12, lines 30-65). It would have been obvious to one of ordinary skill in the art to modify Bane in view of Gaucher to equip the remotes with the tailored power consumption and power saving modes as taught by Simionescu in order to allow the power consumption to be tailored to the remote power requirements.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bane in view of Gaucher.

Bane in view of Gaucher teaches everything claimed except for the specific format in which the transmit times are transmitted from the master being absolute time delay. Official Notice is taken that it is notoriously well known in the art to transmit synchronized transmission times as absolute time. Therefore, it would have been obvious to one of ordinary skill in the art to modify Bane in view of Gaucher to transmit absolute times in order to ensure that the transmissions are properly synchronized.

6. Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bane in view of Gaucher and further in view of Gemar (US 6,414963).

Consider claims 19,23-26. Bane in view of Gaucher teaches everything claimed except for the transmission schedule being determined using a bucket algorithm structure. Gemar teaches a transmission scheduler which creates data structures with elements based on the transmission times then filling buckets with connection identifiers

(Gemar see especially col 6, lines 8-23, col 8, lines 15-60, col 17, line 65 – col 18, line 20). Gemar teaches that this scheduling method allows for dynamic rate scheduling with fine granularity, maximizing communication bandwidth (Gemar, see especially col 3, lines 40-57, col 6, lines 8-25). It would have been obvious to one of ordinary skill in the art to modify Bane in view of Gaucher to use the bucket algorithm schedule method as taught by Gemar in order to allows for dynamic rate scheduling with fine granularity and maximize communication bandwidth.

As to claims 20-22, note that Bane in view of Gaucher, and in view of Gemar would determine transmission schedule based on the information received form the remotes, therefore the adjustable parameters of the bucket algorithm would also be based on the remote information.

Allowable Subject Matter

7. Claims 27-30 are allowed.

Information Disclosure Statement

Applicant indicates that the file reference to an IDS statement filed 11-24-2000 is in error as no IDS was filed on 11-24-200, please verify that only two IDS statements were filed: one on 8-27-99, and one on 10-30-2000.

Response to Arguments

8. Applicant's response did not acknowledge the comment regarding the IDS statements, repeated above. Please confirm the number and dates of the IDS statements filed.

9. Since the previous action inadvertently omitted the new claims 31-34, this action is not being made final.

10. Applicant's arguments filed 4-19-04 have been fully considered but they are not persuasive.

11. Applicant argues that Bane does not teach transmission times greater than 1 second, yet Bane clearly does as shown in figure one, contrast group 1 to group 10. Applicant argues that the reference must be interpreted to only address remotes within a group, yet there appears to be no limitation in the claims that would preclude an analysis related to a member of group 1 and group 10.

12. Applicant also alleges that the combination would not send "complete" messages. Even assuming that complete sets of data would be transmitted in multiple burst in the proposed combination, which the examiner disputes, clearly a "complete message" including the sensor data would be sent. Nevertheless applicants allegation that the proposed combination would require transmission in multiple bursts is not persuasive.

Conclusion

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 703-305-4825. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay can be reached on 703-308-7745. The fax phone numbers for

the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Philip Sobutka

Pjs
June 25, 2004

NAY MAUNG
SUPERVISORY PATENT EXAMINER